

## Some Interesting Fern Finds and Records in Northern Illinois<sup>1</sup>

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Since the publication in 1967 of Mohlenbrock's "The Illustrated Flora of Illinois. Ferns," a number of new records have been discovered, not only by Mohlenbrock and his co-workers, but by others as well. We present here some of the results of our own field studies in the upper Rock River Valley. Included are new range extensions for *Botrychium* and *Ophioglossum*. Two of the records are apparently first records for the state.

On June 15, 1970, we discovered an unusual area in Rock Cut State Park, northeast of Rockford, Winnebago County, where we collected six species of the family Ophioglossaceae in an area of only half an acre. Two of these, the Daisy-leaf Grapefern, *Botrychium matricariifolium* A. Braun, and the Dwarf Grapefern, *B. simplex* E. Hitchc., proved to be previously unrecorded anywhere in Illinois; and another, *Ophioglossum vulgatum* L., was unknown in the north-central part of the state.

*Botrychium matricariifolium* is rare at the site, growing on the sparsely vegetated floor of a young, second-growth, upland Sugar Maple woods, a habitat rare in northern Illinois. *Solanum nigrum* was the only constant, immediate associate noted. The nearest previously reported stations of this Grapefern are 140 miles eastward in southwestern Michigan (Hagenah, 1966) and 180 miles to the north, near Green Bay, Wisconsin (Tryon et al., 1940, p. 103).

*Botrychium simplex* (closest to var. *tenebrosum* (A. A. Eat.) Clausen) is found both in the Maple woods and in an adjoining thicket which appears to have been dry prairie in the recent past, but which has now grown up to very small trees of Slippery Elm. We observed no constant associate for *Botrychium simplex*, except for the Elm. Spot checks have indicated that this Grapefern is common at the site, although it is very inconspicuous. The Dwarf Grapefern is known in northwestern Indiana approximately 115 miles from the Winnebago County station (Deam, 1940, p. 38) and in Wisconsin near Sheboygan, about 125 miles north of the site (Tryon et al., 1940, p. 101).

Adder's-tongue, *Ophioglossum vulgatum*, is abundant in the thicket in association with *Botrychium simplex*. Here it tends to form colonies, often in the middle of large patches of Pussytoes (*Antennaria* sp.). The associates of Adder's-tongue at this site include *Botrychium dissectum* f. *dissectum* and f. *obliquum*, *B. multifidum*, *Asplenium platyneuron*, *Ulmus rubra*, *Liparis loeselii*, and *L. liliifolia*. The variety of Adder's-tongue represented is the northern one, *O. vulgatum* var. *pseu-*

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*dopodum* (Blake) Farw. This new record has been plotted on a range map published by Wagner (1971). It is the second report of this variety in Illinois, all the other collections being the Southeastern Adder's-tongue, *O. vulgatum* var. *pycnostichum* Fern.

The finds reported here bring to 45 the total of ferns and fern allies now known from Winnebago, Ogle and Lee Counties in the upper Rock River Valley of Illinois. As our explorations continue, the area may prove to be one of the richest and most exciting parts of the state for those interested in pteridophytes.

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#### RECENT FERN LITERATURE

**"INDEX TO EQUISETOPHYTA. PART 1: FOSSILES. PART 2: RECENTES,"** by Clyde F. Reed. Part 1, 402 pp., 1971 [but not distributed until June, 1972]; part 2, 128 pp, March 30, 1971.—Dr. Reed has continued his useful series of indices of the "fern allies" with this index of the fossil and living genera and species of the horsetails, *Equisetum*, and related plants. The fossils are the most numerous, including the well-known genera *Calamites* and *Sphenophyllum*, and also a large number of doubtful genera and species. The number of names indexed in the part dealing with the living species of *Equisetum* is of the order of 1800, which is amazing considering that there are only 29 accepted species, including several hybrids. Most of the names are attributable to minor vegetative forms. Many of the living species have also been found as fossils. The work is for sale by the Reed Herbarium, 10105 Harford Road, Baltimore, MD 21234.—C.V.M.